

DOD-STD-1467 (AR)  
18 JANUARY 1985

# MILITARY STANDARD SOFTWARE SUPPORT ENVIRONMENT



AMSC A3432

**DISTRIBUTION STATEMENT A**

Approved for public release;  
Distribution Unlimited

AREA ECRS

19960311 019

DTIC QUALITY INSPECTED C

DOD-STD-1467 (AR)  
18 January 1985

DEPARTMENT OF DEFENSE  
Washington, DC 20301

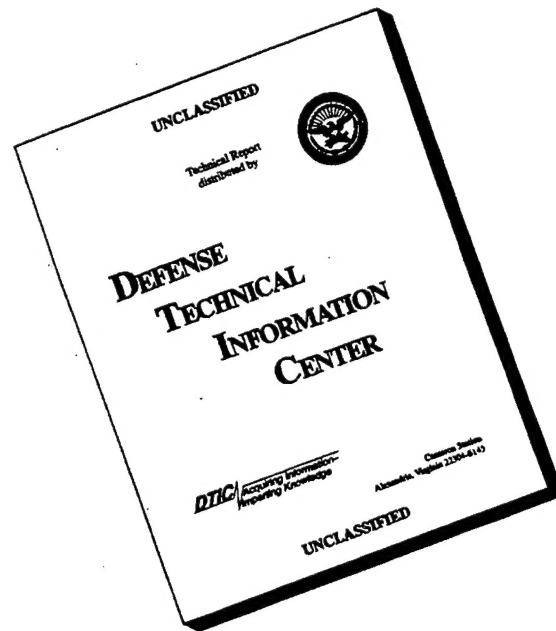
Software Support Environment.

DOD-STD-1467 (AR)

1. This Military Standard is approved for use by the U. S. Army Armament, Munitions and Chemical Command (AMCCOM), Department of the Army, and is available for use by all Departments and Agencies of the Department of Defense.

2. Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, AMCCOM, Attn: SMCAR-TSB, Dover, NJ 07801 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document, or by letter.

# DISCLAIMER NOTICE



**THIS DOCUMENT IS BEST QUALITY AVAILABLE. THE COPY FURNISHED TO DTIC CONTAINED A SIGNIFICANT NUMBER OF PAGES WHICH DO NOT REPRODUCE LEGIBLY.**

## FOREWORD

1. This Standard defines the efforts necessary to ensure the existence of a complete life-cycle software support capability for the contractually deliverable software when it enters the operational inventory. During the operation and maintenance phase of the life cycle, a designated life cycle software support activity will be responsible for managing the contractually deliverable software and for ensuring that any changes are controlled and coordinated with other functional areas. In most cases, an existing life cycle software support activity will be assigned the added responsibility to support the new contractually deliverable software. The added work-load for the new software must be integrated into the existing life cycle software support activity. Only under unusual circumstances will a new facility, or significant additions to existing facilities, be possible.

2. Life cycle software support activities generally support their assigned responsibilities through a support system and a standard set of software, integrated with equipment and unique software for each target computer system. The support systems and software are also standardized to a certain extent among the different life cycle software support activities. For each target computer system, the designated life cycle software support activity will ultimately be responsible for a complex mix of existing standard, newly developed, commercially available and privately developed software for both operational and support functions. The objective of this Standard is to ensure that the contractually deliverable software will be supportable by the designated life cycle software support activity throughout the software's life cycle.

3. This Standard is designed to recognize the needs and constraints of existing life cycle software support activities and, at the same time, allow the software contractor the flexibility to develop software and manage the contract in accordance with the contractor's best judgement and practices. Accordingly, this Standard does not dictate the approach to be used by the contractor. The contracting activity will normally identify in the request for proposal, the designated life cycle software support activity and any of its items that are designated for use by the contractor. Subject to the constraints imposed by the contracting activity, the contractor may propose to use the existing resources of the contracting activity, to use the contractor's own resources (either existing or to be developed), or to select from a wide range of options in between. The contractor will identify the selected approach in the proposal for the contracted software effort. The contractor's approach will be considered during source selection and is subject to approval by the contracting activity prior to implementation.

# CONTENTS

		<u>Page</u>
Paragraph 1.	SCOPE - - - - -	1
1.1	Purpose - - - - -	1
1.2	Application - - - - -	1
1.3	Contractual intent- - - - -	1
2.	REFERENCED DOCUMENTS - - - - -	2
2.1	Issues of documents- - - - -	2
3.	DEFINITIONS- - - - -	3
3.1	Introduction - - - - -	3
3.2	Contracting activity - - - - -	3
3.3	Contracting activity designated resources- - - - -	3
3.4	Contractor - - - - -	3
3.5	Host computer system - - - - -	3
3.6	Previously developed - - - - -	3
3.7	Software support environment - - - - -	3
3.7.1	DSSE (Developmental Software Support Environment)	3
3.7.2	LCSSE (Life Cycle Software Support Environment)-	3
3.8	Software - - - - -	4
3.8.1	Operational software - - - - -	4
3.8.2	Support software - - - - -	4
3.9	Software sources - - - - -	4
3.9.1	Commercially available software- - - - -	4
3.9.2	Privately developed software - - - - -	4
3.9.3	Contracting activity furnished software- - - - -	4
3.9.4	Software that is to be developed - - - - -	4
3.10	Target computer system - - - - -	4
3.11	Unlimited rights- - - - -	4
3.12	Use of "shall", "will", "should", and "may"- - -	4
4.	GENERAL REQUIREMENTS - - - - -	5
4.1	Software support environment - - - - -	5
4.2	Contracting activity resources - - - - -	5
4.3	Rights in documentation and computer software- -	5
4.4	Deviations and waivers - - - - -	6
5.	DETAILED REQUIREMENTS- - - - -	7
5.1	DSSE (Developmental Software Support Environment)	7
5.1.1	DSSE approach - - - - -	7
5.1.2	DSSE identification - - - - -	7

		<u>Page</u>
Paragraph	5.1.3 DSSE contents - - - - -	8
	5.1.4 DSSE operation - - - - -	8
	5.1.5 Differences between the DSSE and the designated LCSSE- - - - -	8
	5.1.6 Software source identification - - - - -	9
	5.2 DSSE implementation - - - - -	9
	5.2.1 Software furnished by the contracting activity -	9
	5.2.1.1 Software integration requirements- - - - -	9
	5.2.1.2 Software documentation requirements- - - - -	9
	5.2.1.3 Software quality assessment requirements - - - -	9
	5.2.1.4 Software configuration management requirements - - - - -	10
	5.2.1.5 Software changes - - - - -	10
	5.2.1.6 Software acceptance requirements - - - - -	10
	5.2.2 Software that is commercially available- - - - -	11
	5.2.2.1 Software integration requirements- - - - -	11
	5.2.2.2 Software documentation requirements- - - - -	11
	5.2.2.3 Software quality assessment requirements - - - -	11
	5.2.2.4 Software configuration management requirements - - - - -	11
	5.2.2.5 Software changes - - - - -	11
	5.2.2.6 Software acceptance requirements - - - - -	11
	5.2.3 Software that is privately developed - - - - -	12
	5.2.3.1 Software integration requirements- - - - -	12
	5.2.3.2 Software documentation requirements- - - - -	12
	5.2.3.3 Software quality assessment requirements - - - -	13
	5.2.3.4 Software configuration management requirements - - - - -	13
	5.2.3.5 Software changes - - - - -	13
	5.2.3.6 Software acceptance requirements - - - - -	13
	5.2.4 Software that is to be developed - - - - -	13
	5.2.4.1 Software integration requirements- - - - -	13
	5.2.4.2 Software documentation requirements- - - - -	14
	5.2.4.3 Software quality assessment requirements - - - -	14
	5.2.4.4 Software configuration management requirements - - - - -	14
	5.2.4.5 Software changes - - - - -	14
	5.2.4.6 Software acceptance requirements - - - - -	14

	<u>Page</u>
Paragraph 5.3 Establishment of software supportability within the designated life cycle software support activity - - - - -	15
5.3.1 Identification of additions to the designated LCSSE- - - - -	15
5.3.2 Description of the designated LCSSE operation- -	15
5.3.3 Implementation of additions to the designated LCSSE- - - - -	15
5.3.4 Supportability and compatibility requirements- -	16
6. MISCELLANEOUS- - - - -	17
Contract data requirements - - - - -	17

## 1. SCOPE

1.1 Purpose. This Standard establishes uniform minimum requirements for the contractor to define a Developmental Software Support Environment (DSSE), to ensure the compatibility of this environment with a contracting activity's designated Life Cycle Software Support Environment (LCSSE), and to ensure the existence of a complete contracting activity life cycle software support capability for the deliverable software of the contracted effort.

1.2 Application. When invoked in a statement of work, these requirements shall apply to all software and associated items necessary to develop and support the software that is deliverable under the contract.

1.3 Contractual intent. This Standard is intended to be augmented by the contracting activity in statements of work in order to satisfy particular development and support requirements for each contracted software effort. The prime contractor is responsible for invoking all requirements of this Standard on any and all subcontractors, vendors or other sources involved in the development of software to be delivered under the requirements of the contract. The prime contractor is responsible for ensuring that all subcontractors, vendors, or other sources involved in the delivery of software to be used to fulfill the requirements under the contract, comply with the requirements of this Standard.



DOD-STD-1467 (AR)  
18 January 1985

## 2. REFERENCED DOCUMENTS

2.1 Issues of documents. None.

### 3. DEFINITIONS

3.1 Introduction. The definitions provided in this Section describe the terms as they are used in this Standard.

3.2 Contracting activity. The contracting activity refers to that office, with contract and project directive administrative authority, which has prime responsibility for and authority over the contracted software effort.

3.3 Contracting activity designated resources. Resources that the contracting activity identifies to the contractor to be included and used in the Developmental Software Support Environment. (Note: The contracting activity may elect to furnish these resources and arrange any necessary licenses, or require the contractor to do so).

3.4 Contractor. Contractor refers to any organization under contract or tasking agreement with the contracting activity to perform any part of the contracted software effort.

3.5 Host computer system. Computer equipment, support software, or procedures used to develop and support the contractually deliverable software for one or more target computer systems. A host computer system may additionally include: a) elements of the target computer systems, b) modifications, emulations, or simulations of the target computer systems, or c) specially designed software or equipment to permit development and support of the operational and support software.

3.6 Previously developed. Software and documentation that is available for delivery and acceptance prior to award of the contract.

3.7 Software support environment. A host computer system, plus other related equipment and procedures, located in a facility that provides a total support capability for the software of a target computer system (or a set of functionally and physically related target computer systems). The environment enables the performance of a full range of services, including: performance evaluation, system and software generation, development and testing of changes, simulation, emulation, training, software integration, configuration management, and operational distribution for the software. Two types of software support environments are addressed:

3.7.1 DSSE (Developmental Software Support Environment). Those contracting activity approved resources identified by a software contractor to be used to support the software requirements under the contracted efforts.

3.7.2 LCSSE (Life Cycle Software Support Environment). Those contracting activity resources used by the life cycle software support activity to provide a total life cycle software support capability for assigned target computer systems.

3.8 Software. A combination of associated computer programs and computer program data definitions required to enable the computer hardware to perform computational or control functions. (Note: this definition includes firmware within its applicability. This definition of software is independent of the type of physical storage media in which the software resides). Software is further defined as follows:

3.8.1 Operational software. All software used to operate, or that is resident in, a target computer system.

3.8.2 Support software. All software used to aid the development, testing and support of operational software. Support software includes all software used to operate, or that is resident in, a software support environment.

3.9 Software sources. For the purposes of this Standard, the following terms are used to describe the sources of software:

3.9.1 Commercially available software. Previously developed software used regularly for other than Government purposes and sold, licensed or leased in significant quantities to the general public at established market or catalog prices.

3.9.2 Privately developed software. Previously developed software independently developed by an industrial source at its own expense. (Note: In contrast with software that is commercially available, this software may have limited availability and may be subject to peculiar or unusual restrictions or limiting agreements).

3.9.3 Contracting activity furnished software. Software that the contracting activity provides to the contractor to be used for the contracted software effort and included in the DSSE.

3.9.4 Software that is to be developed. Software to be developed, or in any stage of development, that is needed to fulfill the requirements of the contracted effort.

3.10 Target computer system. Computer equipment, software, or procedures which are physically a part of an operational system.

3.11 Unlimited rights. The rights to use, duplicate, or disclose technical data or computer software in whole or in part, in any manner and for any purpose whatsoever, and to have or permit others to do so.

3.12 Use of "shall", "will", "should", and "may". "Shall" is used to express a provision that is binding; "should" and "may" are used to express nonmandatory provisions; "will" is used to express a declaration of purpose or intent.

#### 4. GENERAL REQUIREMENTS

4.1 Software support environment. The contractor shall define, implement and integrate all software and related items that will be used to develop and support the deliverable software required under the contract. The contractor shall identify all software and related items that are recommended by the contractor for use by the designated life cycle software support activity to support the contractually deliverable software throughout its operational life. The contractor shall also identify the approach proposed to ensure and warrant the existence of the capability to perform software support of the contractually deliverable software by the designated life cycle software support activity. The contractor shall submit the proposed approach to the contracting activity and obtain approval from the contracting activity prior to commencing the contracted software effort. (See 6.0)

4.2 Contracting activity furnished resources. The contracting activity may designate resources to be used by the contractor. The contractor shall identify to the contracting activity any resources expected to be furnished by the contracting activity to support the contracted effort. These resources shall be identified in the contractor's proposed DSSE approach. The contracting activity retains the option to furnish the resources or to require, through the contract, the contractor to obtain them. (See 6.0)

4.3 Rights in documentation and computer software. The contractor may propose the use or delivery of software and documentation with limited or restricted rights, or other potential licensing agreements. Any such contractor proposals must clearly identify for each item the expected economic and other benefits or risks to accrue to the contracting activity and the expected constraints on the rights of the contracting activity. Unless prior approval for the use or delivery of this software is obtained from the contracting activity, the contractor shall ensure that the contracting activity shall have unlimited rights in all computer software, equipment, and documentation that is required to evaluate, generate, install, integrate, test, modify, support, and operate the contractually deliverable software. All such items necessary to ensure the performance of these functions shall be available for delivery by the contractor to the contracting activity. The contractor shall obtain contracting activity approval prior to implementation or use, and prior to any contractor licenses or agreements associated with the purchase or use of, any commercially available or privately developed software and documentation related to the performance of the contract. (See 6.0)

4.4 Deviations and waivers. All resources required to satisfy the requirements of this Standard shall be developed and delivered in complete conformance with the requirements of this Standard, unless a deviation or waiver for each specific item has been previously processed and approved by the contracting activity. The extent of any variance from exact conformance to all applicable requirements shall only be that which is specifically authorized by formally approved deviations and waivers.

## 5. DETAILED REQUIREMENTS

5.1 DSSE (Developmental Software Support Environment). The contractor shall implement a DSSE that provides a full range of engineering and other functional services for the development and support of contractually deliverable software. The contracting activity may designate a specific life cycle software support activity or concept and, additionally, may direct the use of existing LCSSE resources. The contractor shall evaluate alternative methods of providing a DSSE which provides the requisite support services and which is completely compatible with the LCSSE that may have been designated by the contracting activity. The contractor's evaluations shall address, as a minimum, the requirements specified in the following paragraphs and shall identify how the required software support capability within the contracting activity designated LCSSE will be ensured and warranted to the contracting activity. The contractor shall design a DSSE that satisfies all specified requirements and that is fully compatible with the LCSSE that may have been designated by the contracting activity. The contractor shall obtain contracting activity approval of the proposed DSSE approach prior to its implementation or use in performing the contracted software effort. (See 6.0)

5.1.1 DSSE approach. The DSSE approach shall be based on developing and supporting all contractually deliverable software in an environment that has extensive support software resident in a host computer system.

5.1.2 DSSE identification. Unless otherwise specified by the contracting activity, the contractor may propose to utilize the resources of the designated life cycle software support activity, to utilize the contractor's internal software development resources, or to use a combination of those resources. The contractor shall ensure that any recommendation to incorporate commercially available or privately developed software considers the potential economic commitments (initial and recurring), the risks of long term dependence on the subcontractor or vendor, the probability of obsolescence, and the projected stability of the proposed software. The contractor shall identify alternatives, with supporting economic analyses, to provide the capabilities of the commercially available or privately developed software through other means, such as redeveloping or modifying other software. The contractor's approach shall clearly identify the interfaces with any LCSSE designated by the contracting activity. The contractor shall reconcile the operations and support requirements identified by the contracting activity with the proposed DSSE. Once it has been approved by the contracting activity, any changes in the contractor's DSSE shall be subject to contracting activity approval prior to implementation or use.

5.1.3 DSSE contents. The DSSE shall provide, as a minimum, a set of defined user/system interfaces, a set of software support tools, and a central library for the storage of software and all information associated with the development and support of the contractually deliverable software over its life cycle. The DSSE shall provide for storage of software both in a source form and in a form that has been compiled for a host computer system or a particular target computer system. The DSSE shall include a control language which presents an interface to the user and to the information in the central library. The software support tools shall include tools for software development, testing, support, maintenance, and configuration control. The DSSE shall support the functions of project management, documentation, and release control. The contracting activity may specify specific data bases, tools, interfaces, and procedures for inclusion in the DSSE.

5.1.4 DSSE operation. The contractor shall establish procedures and controls for access, use, generation, and change of all software in the DSSE. As a minimum, the contractually specified software development requirements for library usage and control, software generation, software operation, software configuration management, software quality assessment, and software trouble reporting shall be included and shall be applied to all software in the DSSE.

5.1.5 Differences between the DSSE and the designated LCSSE. The contractor shall describe all differences between the DSSE and the designated LCSSE. The contractor shall describe all additions to the designated LCSSE, both software and procedures, that are necessary to ensure the compatibility of the DSSE with the designated LCSSE. The contractor shall identify the proposed additions as those that are either required to support a specific application for a particular target computer system or those that have potential for broader usage in the designated LCSSE. The contractor shall also separately identify and justify all software or procedures intended for use in the DSSE, but not recommended for inclusion in the designated LCSSE. For each such item, the contractor shall provide reasons why these additions are not recommended. The contracting activity may specify software or procedures to be added to the designated LCSSE. No contractually deliverable software shall be dependent on any software or procedures that are not deliverable to, or designated by the contracting activity. The additions to the designated LCSSE are subject to approval of the contracting activity prior to implementation or use of the DSSE.



5.1.6 Software source identification. The components of the proposed DSSE may come from four sources, i.e., software that is furnished by the contracting activity, software that is commercially available, software that is privately developed or software that is to be developed under the contract. These software sources are defined in paragraph 3.9 of this Standard. The contractor shall identify the proposed source(s) for all the software to be included in the DSSE. The proposed software sources shall be subject to approval by the contracting activity prior to implementation or use, and prior to any contractor licenses or agreements associated with the purchase or use of, any commercially available or privately developed software.

5.2 DSSE implementation. Upon approval by the contracting activity, the contractor may implement the proposed DSSE. The following paragraphs contain specific requirements for the software in the DSSE that will originate from each of the sources defined in paragraph 3.9.

5.2.1 Software furnished by the contracting activity. The contractor shall manage the software furnished by the contracting activity in accordance with the following paragraphs:

5.2.1.1 Software integration requirements. The contractor shall integrate the contracting activity furnished software with the approved DSSE. Any additions or changes required to the contractor's DSSE to integrate the contracting activity furnished software shall be separately identified, developed, and controlled as required in other parts of this Standard. The contractor's DSSE shall be designed to ensure the independence of the contracting activity furnished software from the rest of the DSSE.

5.2.1.2 Software documentation requirements. The contractor shall not change the contracting activity furnished specifications or descriptive documentation without prior approval and direction by the contracting activity. The contractor shall fully define and document all additions or changes to the DSSE that were required to properly integrate the contracting activity furnished software. The documentation and delivery requirements for these additions or changes shall be as specified in the contract or in the Contract Data Requirements List.

5.2.1.3 Software quality assessment requirements. The contractor shall include in the contracting activity approved software quality assessment program the procedures necessary to ensure that the requirements for integration of the contracting activity furnished software with the DSSE are satisfied.



5.2.1.4 Software configuration management requirements. The contractor shall include in the contracting activity approved software configuration management program the procedures necessary to prevent unauthorized changes to the contracting activity furnished software. The contractor shall identify any problems encountered in the integration and use of this software with the DSSE and shall provide recommended actions to correct these problems to the contracting activity.

5.2.1.5 Software changes. The contractor shall not make any changes to any software furnished by the contracting activity.

5.2.1.6 Software acceptance requirements. The contractor shall ensure that the configuration of the contracting activity furnished software has not been changed and continues to conform with the contracting activity furnished specifications and documentation.

5.2.2 Software that is commercially available. The use of commercially available software shall be subject to contracting activity approval prior to incorporation or use, or prior to any contractor licenses or agreements associated with the purchase or use. The contractor shall identify any licenses or similar agreements by the contractor or among the contractor and subcontractors, vendors, or other sources that will impose any constraints on the use of this software by the designated life cycle software support activity, or by any agent employed by the designated life cycle software support activity to perform life cycle software support of the software developed or delivered under the contract. Unless prior approval to the contrary is obtained from the contracting activity, the contractor shall ensure that the contracting activity shall have unlimited rights to this software. Approval to use this software shall not relieve the contractor of obligations to integrate this software into the DSSE and to ensure compatibility with the designated LCSSE.

5.2.2.1 Software integration requirements. The contractor shall ensure that the commercially available software is properly integrated into the DSSE and will be compatible with the designated LCSSE. Where subcontractor or vendor supplied documentation is used to verify performance, the contractor shall either certify the sufficiency and accuracy of the documentation and test results or accomplish added testing as may be specified by the contracting activity. The contractor shall integrate this software into the DSSE such that any future deficiency corrections or enhancements submitted or released by the original supplier of the software can be readily incorporated by the contracting activity. For commercially available software that is unique to the target computer system, the contractor's DSSE shall be designed to ensure the independence of this software from the rest of the DSSE and the designated LCSSE.

5.2.2.2 Software documentation requirements. The documentation and delivery requirements for the commercially available software shall be as specified in the contract or in the Contract Data Requirements List. Where existing documentation satisfies the intent of this Standard, and modification or redevelopment of the documentation is not cost-effective or intended, the existing documentation may be substituted, subject to prior approval by the contracting activity. (See 6.0)

5.2.2.3 Software quality assessment requirements. The contractor shall apply the contracting activity approved software quality assessment program to the commercially available software. The contractor shall include in the contracting activity approved software quality assessment program the procedures necessary to ensure that this software satisfies its specified requirements and is properly integrated into the DSSE.

5.2.2.4 Software configuration management requirements. The contractor shall apply the contracting activity approved software configuration management program to the commercially available software. The contractor shall include in the contracting activity approved software configuration management program the procedures necessary to prevent unauthorized changes to this software. The contractor shall identify any problems encountered in the integration and use of this software with the DSSE and shall provide recommended actions to correct these problems to the contracting activity.

5.2.2.5 Software changes. The contractor shall not make any changes to the commercially available software without prior approval of the contracting activity. If any of this software must be changed from its commercially available version or release, it shall be recategorized and managed from that point on as software that is to be developed. The contractor shall be responsible for identifying and resolving with the original supplier of the software any deficiencies or incompatibilities of this software with both the DSSE and the designated LCSSE. The contractor shall identify to the contracting activity all changes submitted or released by the original supplier of the software, with an assessment of the possible effects of incorporation in the DSSE and the designated LCSSE. The contracting activity may designate changes submitted or released by the original supplier of the software for incorporation in the DSSE and the contractor shall implement all such designated changes into the DSSE.

5.2.2.6 Software acceptance requirements. In addition to any criteria specified by the contracting activity, commercially available software acceptance shall be predicated upon compatibility with the designated LCSSE and satisfactory resolution of any limited or restricted rights issues.

5.2.3 Software that is privately developed. The use of privately developed software, whether supplied by the contractor, subcontractors or vendors, or any other source, shall be subject to contracting activity approval prior to incorporation or use, or prior to any contractor licenses or agreements associated with the purchase or use. Unless prior approval to the contrary is obtained from the contracting activity, the contractor shall ensure that the contracting activity shall have unlimited rights to this software. The contractor shall identify any licenses or similar agreements by the contractor or among the contractor and subcontractors, vendors, or other sources that will impose any constraints on the use of this software by the designated life cycle software support activity, or by any agent employed by the designated life cycle software support activity to perform life cycle software support of the contractually deliverable software. Approval to use this software shall not relieve the contractor of obligations to integrate this software into the DSSE and to ensure its compatibility with the designated LCSSE.

5.2.3.1 Software integration requirements. The contractor shall ensure that the privately developed software is properly integrated into the DSSE and will be compatible with the designated LCSSE. Where existing documentation is used to verify performance, the contractor shall either certify the sufficiency and accuracy of the documentation and test results or accomplish added testing as may be specified by the contracting activity. The contractor shall ensure that any recommendation to incorporate privately developed software considers both the life cycle economic and other benefits or risks to the contractor and the contracting activity. The recommendation should include an assessment of the software's and documentation's quality, the lost or impaired capabilities that would result if the software is not used, and the effort required to develop or modify added software or documentation to provide similar capabilities. For privately developed software that is unique to the target computer system, the contractor's DSSE shall be designed to ensure the independence of this software from the rest of the DSSE.

5.2.3.2 Software documentation requirements. The documentation and delivery requirements for the privately developed software shall be as specified in the contract or in the Contract Data Requirements List. Where existing documentation satisfies the intent of this Standard, and modification or redevelopment of the documentation is not cost-effective or intended, the existing documentation may be substituted, subject to prior approval by the contracting activity. (See 6.0)

5.2.3.3 Software quality assessment requirements. The contractor shall apply the contracting activity approved software quality assessment program to the privately developed software. The contractor shall include in the contracting activity approved software quality assessment program the procedures necessary to ensure that this software satisfies its specified requirements and is properly integrated into the DSSE.

5.2.3.4 Software configuration management requirements. The contractor shall apply the contracting activity approved software configuration management program to the privately developed software. The contractor shall include in the contracting activity approved software configuration management program the procedures necessary to prevent any unauthorized changes to this software. The contractor shall identify any problems encountered in the integration and use of this software with the DSSE and shall provide recommended actions to correct these problems to the contracting activity.

5.2.3.5 Software changes. The contractor shall not make any changes to the privately developed software without prior approval of the contracting activity. All changes proposed by the contractor to this software shall identify the impact of the change on the contractually deliverable software, the DSSE, and the designated LCSSE. The contractor is responsible for identifying and resolving with subcontractors, vendors, or other sources any deficiencies or incompatibilities of this software with both the DSSE and the designated LCSSE. The contractor shall identify to the contracting activity all changes submitted or released by the original supplier of the software, with an assessment of the possible effects of incorporation in the DSSE and the designated LCSSE. The contracting activity may designate changes submitted or released by the original supplier of the software for incorporation in the DSSE and the contractor shall implement all such designated changes into the DSSE.

5.2.3.6 Software acceptance requirements. In addition to any criteria specified by the contracting activity, privately developed software acceptance shall be predicated upon compatibility with the designated LCSSE and satisfactory resolution of any limited or restricted rights issues.

5.2.4 Software that is to be developed. All support software in this category shall be developed in accordance with the contractually specified software development requirements.

5.2.4.1 Software integration requirements. The contractor shall ensure that the software to be developed is properly integrated into the approved DSSE and will be compatible with the designated LCSSE. The contractor shall include all necessary testing as part of the overall software and system test program. The contractor shall design the software in this category for compatibility with, and operation in, the designated LCSSE. The contractor shall completely identify all adaptations or changes to this software to accommodate any differences between the DSSE and the designated LCSSE. The design of this software shall isolate and identify all DSSE and designated LCSSE dependencies.

5.2.4.2 Software documentation requirements. The documentation requirements for the software in this category shall be as specified in the contract or in the Contract Data Requirements List.

5.2.4.3 Software quality assessment requirements. The contractor shall apply the contracting activity approved software quality assessment program to the software in this category to ensure that it is developed according to contractual requirements. The software quality assessment program shall be supplemented as necessary to ensure that the requirements herein for compatibility of the software with the designated LCSSE are satisfied.

5.2.4.4 Software configuration management requirements. The contractor shall apply the contracting activity approved software configuration management program to the software to be developed. The contractor shall include in this program any added documentation and configuration management requirements that have been specified by the contracting activity.

5.2.4.5 Software changes. The contractor shall establish internal baselines for this software in accordance with the contractually specified software development requirements. After the internal baselines have been established, all changes to this category of software proposed by the contractor shall additionally identify the impact of the change on the operational software, the DSSE and the designated LCSSE.

5.2.4.6 Software acceptance requirements. In addition to any criteria specified by the contracting activity, acceptance of the developed software shall be predicated upon compatibility with the designated LCSSE.

5.3 Establishment of software supportability within the designated life cycle software support activity. In addition to any other requirements specified by the contracting activity, final acceptance of the contracted software effort shall be predicated on establishment of a satisfactory support capability for the contractually deliverable software in the designated life cycle software support activity. The required support capability shall include the compatibility of the DSSE with the contracting activity designated LCSSE, and the capability of the designated LCSSE to perform software support for the contractually deliverable software. The contractor shall define for contracting activity approval the proposed approach for ensuring and warranting the required support capability. The methods used to satisfy these requirements, as a minimum, are specified in the following paragraphs. (See 6.0)

5.3.1 Identification of additions to the designated LCSSE. The contractor shall identify all software and procedures in the DSSE that are required by the contracting activity to properly support the contractually deliverable software throughout its life cycle. The contractor shall describe how any additions of software and procedures from the DSSE will interface with the existing software and procedures in the designated LCSSE. (See 6.0)

5.3.2 Description of the designated LCSSE operation. The contractor shall describe how the designated LCSSE shall be used to evaluate, generate, install, integrate, test, modify, and operate the contractually deliverable software. The contractor shall describe the procedures required by the designated LCSSE to accomplish performance evaluation, software and system generation, development and testing of changes, simulation, emulation, training, software integration, configuration management, and distribution for the contractually deliverable software. (See 6.0)

5.3.3 Implementation of additions to the designated LCSSE. The contractor shall plan for and implement the transfer of software support for the contractually deliverable software to the designated life cycle software support activity. This effort shall be designed to ensure a phased transfer without loss or degradation of the support required for the delivered software or to other tasks currently performed by the designated life cycle software support activity. The contractor shall identify the requirement for use of any contracting activity resources during the transfer phase. The contractor shall plan lead-time to ensure completion of the transfer prior to activation of the first operational target computer system



or prior to the planned assumption of software support responsibilities by the designated life cycle software support activity. The contractor shall ensure that the procedures for operation of the designated LCSSE completely describe all methods necessary to evaluate, generate, install, integrate, test, modify, and operate the contractually deliverable software. The contractor shall make available assistance to support the resolution of any problems encountered under operation by the designated life cycle software support activity personnel during the transfer period and during a period of time subsequent to the transfer as specified by the contracting activity. These procedures shall be subject to approval of the contracting activity prior to implementation. (See 6.0)

5.3.4 Supportability and compatibility requirements. The contractor shall implement the contracting activity approved approach to ensure and warrant that the DSSE is completely compatible with the designated LCSSE, and shall ensure that the designated LCSSE has the capability to perform software support for the contractually deliverable software. The procedures shall be subject to approval of the contracting activity prior to implementation. (See 6.0) The satisfaction of the supportability and compatibility requirements shall depend on the existence of the following conditions:

a. All contractually deliverable software is capable of being evaluated, generated, installed, integrated, tested, and modified utilizing only the contracting activity designated and contractor delivered software in the designated LCSSE.

b. All operations or functions accomplished by the contractor's DSSE, and identified to or by the contracting activity for inclusion in the designated LCSSE, can be performed in the designated LCSSE.

c. The delivered software will produce identical results when operated in the target computer system, whether generated in the contractor's DSSE or generated in the designated LCSSE.

## 6. MISCELLANEOUS

Contract data requirements. When this standard is used in an acquisition which incorporates the DD Form 1423, Contract Data Requirements List (CDRL), the data requirements identified below shall be developed as specified by an approved Data Item Description (DD Form 1664) and delivered in accordance with the approved CDRL incorporated into the contract. When the provisions of DOD FAR Supplement, Part 27.410-6, are invoked, and the DD Form 1423 is not used, the data specified below shall be delivered by the contractor in accordance with the contract or purchase order requirements. Deliverable data required by this standard is cited in the following paragraphs:

<u>Paragraph no.</u>	<u>Data requirements title</u>	<u>Applicable DID no.</u>	<u>Options</u>
4.1, 5.1, 5.3, 5.3.1, 5.3.3, 5.3.4	Developmental Software Support Environment Plan	DI-E-7140	None
5.2.2.2, 5.2.3.2	Documentation of Commercially Available or Privately Developed Software	DI-E-7141	None
5.3.1, 5.3.3, 5.3.4	Software Support Transition Plan	DI-E-7142	None
5.3.2	Life Cycle Software Support Environment Users Guide	DI-E-7143	None

Review activity:  
Army - AV, CR

Preparing activity:  
Army - AR  
(ECRS-A007)



**INSTRUCTIONS:** In a continuing effort to make our standardization documents better, the DoD provides this form for use in submitting comments and suggestions for improvements. All users of military standardization documents are invited to provide suggestions. This form may be detached, folded along the lines indicated, taped along the loose edge (*DO NOT STAPLE*), and mailed. In block 5, be as specific as possible about particular problem areas such as wording which required interpretation, was too rigid, restrictive, loose, ambiguous, or was incompatible, and give proposed wording changes which would alleviate the problems. Enter in block 6 any remarks not related to a specific paragraph of the document. If block 7 is filled out, an acknowledgement will be mailed to you within 30 days to let you know that your comments were received and are being considered.

**NOTE:** This form may not be used to request copies of documents, nor to request waivers, deviations, or clarification of specification requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

(Fold along this line)

(Fold along this line)

DEPARTMENT OF THE ARMY



NO POSTAGE  
NECESSARY  
IF MAILED  
IN THE  
UNITED STATES

OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE \$300

**BUSINESS REPLY MAIL**

FIRST CLASS PERMIT NO. 12062 WASHINGTON D C

POSTAGE WILL BE PAID BY THE DEPARTMENT OF THE ARMY

COMMANDER  
US ARMY ARMAMENT MUNITIONS & CHEMICAL COMMAND  
ATTN: SMCAR-TSB  
DOVER, NJ 07801 5001



# STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

(See Instructions - Reverse Side)

1. DOCUMENT NUMBER

DOD-STD-1467

2. DOCUMENT TITLE

SOFTWARE SUPPORT ENVIRONMENT

3a. NAME OF SUBMITTING ORGANIZATION

4. TYPE OF ORGANIZATION (Mark one)

☐

VENDOR

☐

USER

☐

MANUFACTURER

☐

OTHER (Specify):

5. PROBLEM AREAS

a. Paragraph Number and Wording:

b. Recommended Wording:

c. Reason/Rationale for Recommendation:

6. REMARKS

7a. NAME OF SUBMITTER (Last, First, MI) - Optional

b. WORK TELEPHONE NUMBER (Include Area Code) - Optional

c. MAILING ADDRESS (Street, City, State, ZIP Code) - Optional

8. DATE OF SUBMISSION (YYMMDD)

NOTICE OF  
VALIDATION

NOT MEASUREMENT  
SENSITIVE

DOD-STD-1467(AR)

NOTICE 1

5 October 1990

## MILITARY STANDARD SOFTWARE SUPPORT ENVIRONMENT

DOD-STD-1467(AR), dated 18 January 1985, has been reviewed and determined to be valid for use in acquisition.

Preparing activity:  
Army - AR

AMSC A3432

AREA MCCR

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

NOTICE OF  
CHANGE

NOT MEASUREMENT SENSITIVE

DOD-STD-1467(AR)  
NOTICE 2  
15 March 1991

MILITARY STANDARD  
SOFTWARE SUPPORT ENVIRONMENT

TO ALL HOLDERS OF DOD-STD-1467(AR):

1. THE FOLLOWING PAGES OF DOD-STD-1467(AR) HAVE BEEN REVISED  
AND SUPERSEDE THE PAGES LISTED:

NEW PAGE	DATE	SUPERSEDED PAGE	DATE
iv	15 March 1991	iv	18 January 1985
1	15 March 1991	1	18 January 1985

2. RETAIN THIS NOTICE AND INSERT BEFORE TABLE OF CONTENTS.

3. Holders of DOD-STD-1467(AR) will verify that page changes and additions indicated above have been entered. This notice page will be retained as a check sheet. This issuance, together with appended pages, is a separate publication. Each notice is to be retained by stocking points until the military standard is completely revised or canceled.

Preparing activity:  
Army - AR

Review activities:  
Army - AV, CR

(Project MCCR-0039)

AMSC N/A  
DISTRIBUTION STATEMENT A. Approved for public release; distribution unlimited.

AREA MCCR

DOD-STD-1467(AR)  
NOTICE 2

CONTENTS

	<u>Page</u>
Paragraph 1. SCOPE-----	1
1.1 Purpose-----	1
1.2 Application-----	1
1.3 Contractual intent-----	1
1.4 Application guidance-----	1
2. REFERENCED DOCUMENTS-----	2
2.1 Issues of documents-----	2
3. DEFINITIONS-----	3
3.1 Introduction-----	3
3.2 Contracting activity-----	3
3.3 Contracting activity designated resources-----	3
3.4 Contractor-----	3
3.5 Host computer system-----	3
3.6 Previously developed-----	3
3.7 Software support environment-----	3
3.7.1 DSSE (Developmental Software Support Environment) --	3
3.7.2 LCSSE (Life Cycle Software Support Environment) ----	3
3.8 Software-----	4
3.8.1 Operational software-----	4
3.8.2 Support software-----	4
3.9 Software sources-----	4
3.9.1 Commercially available software-----	4
3.9.2 Privately developed software-----	4
3.9.3 Contracting activity activity furnished software-----	4
3.9.4 Software that is to be developed-----	4
3.10 Target computer system-----	4
3.11 Unlimited rights-----	4
3.12 Use of "shall," "will," "should," and "may"-----	4
4. GENERAL REQUIREMENTS-----	5
4.1 Software support environment-----	5
4.2 Contracting activity resources-----	5
4.3 Rights in documentation and computer software-----	5
4.4 Deviations and waivers-----	6
5. DETAILED REQUIREMENTS-----	7
5.1 DSSE (Developmental Software Support Environment)-----	7
5.1.1 DSSE approach-----	7
5.1.2 DSSE identification-----	7

Supersedes page iv.

DOD-STD-1467 (AR)  
NOTICE 2

1. SCOPE

1.1 Purpose. This Standard establishes uniform minimum requirements for the contractor to define a Developmental Software Support Environment (DSSE), to ensure the compatibility of this environment with a contracting activity's designated Life Cycle Software Support Environment (LCSSE), and to ensure the existence of a complete contracting activity life cycle software support capability for the deliverable software of the contracted effort.

1.2 Application. When invoked in a statement of work, these requirements shall apply to all software and associated items necessary to develop and support the software that is deliverable under the contract.

1.3 Contractual intent. This Standard is intended to be augmented by the contracting activity in statements of work in order to satisfy particular development and support requirements for each contracted software effort. The prime contractor is responsible for invoking all requirements of this Standard on any and all subcontractors, vendors or other sources involved in the development of software to be delivered under the requirements of the contract. The prime contractor is responsible for ensuring that all subcontractors, vendors, or other sources involved in the delivery of software to be used to fulfill the requirements under the contract, comply with the requirements of this Standard.

1.4 Application guidance. MIL-HDBK-782(AR), "Implementation Guide for DOD-STD-1467(AR), Software Support Environment", provides fundamentals regarding the use of this Standard as one means of ensuring software supportability on contracted software development efforts. It is designed for use by both contractor and Government acquisition managers, and life cycle software support activities, as an aid in understanding the scope and intent of the Standard, and in determining the efforts that must precede acceptance of software support by the Government's designated life cycle software support activity.

NOTICE OF INACTIVATION  
FOR NEW DESIGN

DOD-STD-1467(AR)  
NOTICE 3  
March 20, 1995

MILITARY STANDARD

SOFTWARE SUPPORT ENVIRONMENT

DOD-STD-1467(AR), dated 18 January 1985, and NOTICE 2 of 15 March 1991, are inactive for new design and shall be no longer used except in the procurement of replenishment spares as necessary to maintain equipment in the field until obsolescence or wear out.

Preparing activity:  
Army - AR

Agent:  
OSD - SO

(Project MCCR-A103)

AMSC N/A

AREA MCCR

DISTRIBUTION STATEMENT A. Approved for public release;  
distribution is unlimited.